

Environment, Natural Resources and Agriculture Science, Evidence and Policy Conference 2024

Prof. Mathew Williams

Chief Scientific Adviser, ENRA, Scottish Government

Goals for today

- Discuss key strategic issues in the environment and rural economy
- Showcase excellence in Scottish Government funded research
- Build networks and collaborations

Our theme today is on climate adaptation



Sallie Bailey



Edzell's "flood defence system stood up to the brunt of Storm Babet. It was due in no small part to the effective work of the **Edzell Flood Group**. The group has been in existence for more than a decade."

The Courier



Scottish Flood Forum

RESAS

Rural & Environmental Science
and Analytical Services



Scottish Government
Riaghaltas na h-Alba

SEFARI



The James
Hutton
Institute



The Rowett
Institute



Royal
Botanic Garden
Edinburgh



 CREW Centre of Expertise for Water	 CXC ClimateXchange	 EPIC Epidemiology, Population Health and Infectious Disease Control	 PHC Plant Health Centre	 SEFARI Gateway Knowledge Exchange Impact Hub

Reflections on Scotland's Science and Evidence Needs for Decision Making

Prof. Mathew Williams

Chief Scientific Adviser, ENRA, Scottish Government

The Science-evidence-policy process for decision support

- What is the right approach to deploy science and evidence in government?
- Is our current approach fit for purpose?
- How should we shape an evolution to this system?
- Q&A

Data->information->knowledge->wisdom

analyse

synthesise

systematise

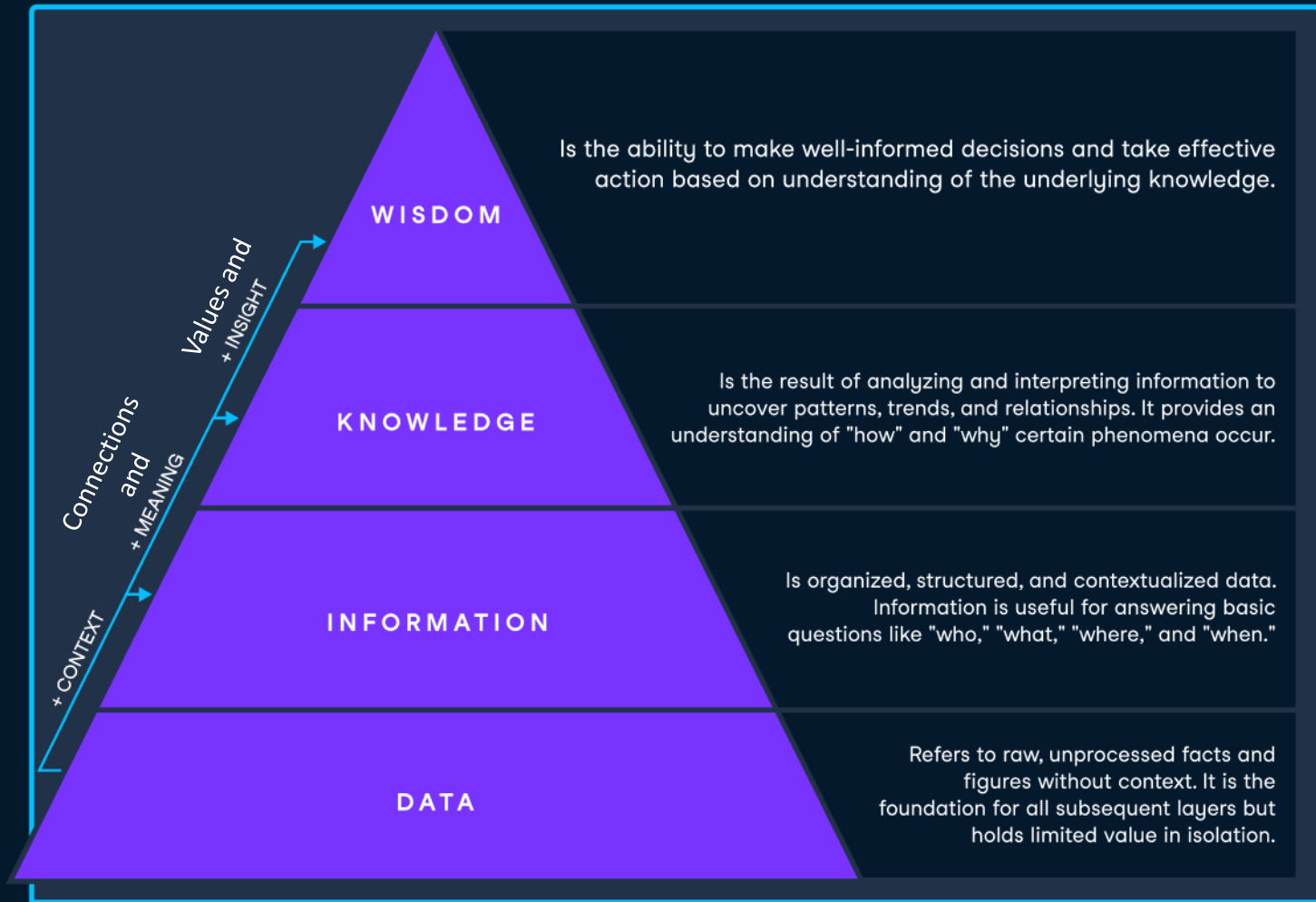
Decision risk

High

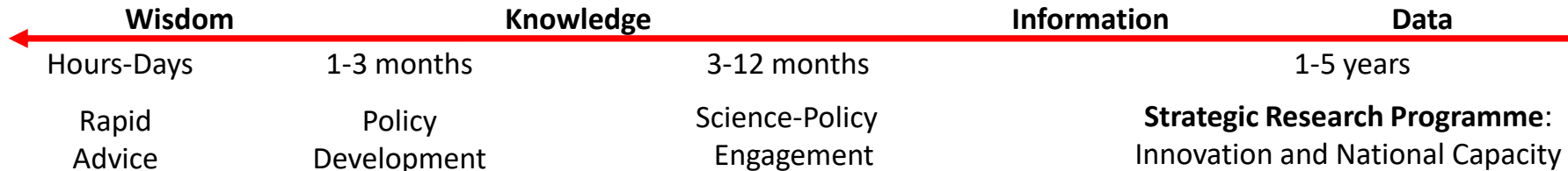
Low



DIKW



CSA-ENRA: pathways for science-policy engagement



RESAS
Office of the Chief Scientific Adviser-ENRA

First Minister's Environmental Council

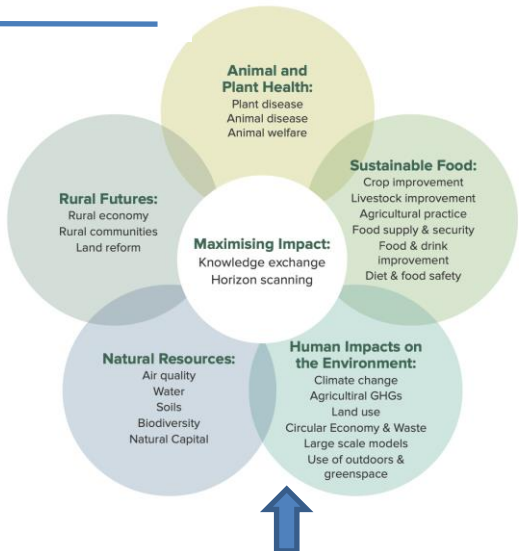
Centres of Expertise

CREW Centre of Expertise for Water
CIC ClimateChange
EPIC Epidemiology, Population Health and Infectious Disease Control
PHC Plant Health Centre
SEFARI Gateway Knowledge Exchange Impact Hub

CREW, climateChange, epic, Plant Health Centre, SEFARI

SASA Helping Scotland Grow, NatureScot Scotland's Nature Agency, Forest Research

BioSS, The James Hutton Institute, Moredun Research Institute, Rowett Institute of Nutrition and Health, Royal Botanic Garden Edinburgh, SRUC





Rock
Dust

UNDO

THE ROYAL SOCIETY

Fellows Events Journals Current topics

News and resources / Projects / Low carbon energy programme

Ammonia: zero-carbon fertiliser, fuel and energy store

The production of green ammonia could offer options in the transition to net-zero carbon dioxide emissions



Lidar

afbi AGRI-FOOD & BIOSCIENCES INSTITUTE

Ulster University



Circular Bioeconomy

textiles bioplastics biofuel

construction materials

composites

paper products

graphene substitutes

Novel crops (Rowett)

"invention in a noted weed"
William Shakespeare





Competition for land



Drought



Novel diseases



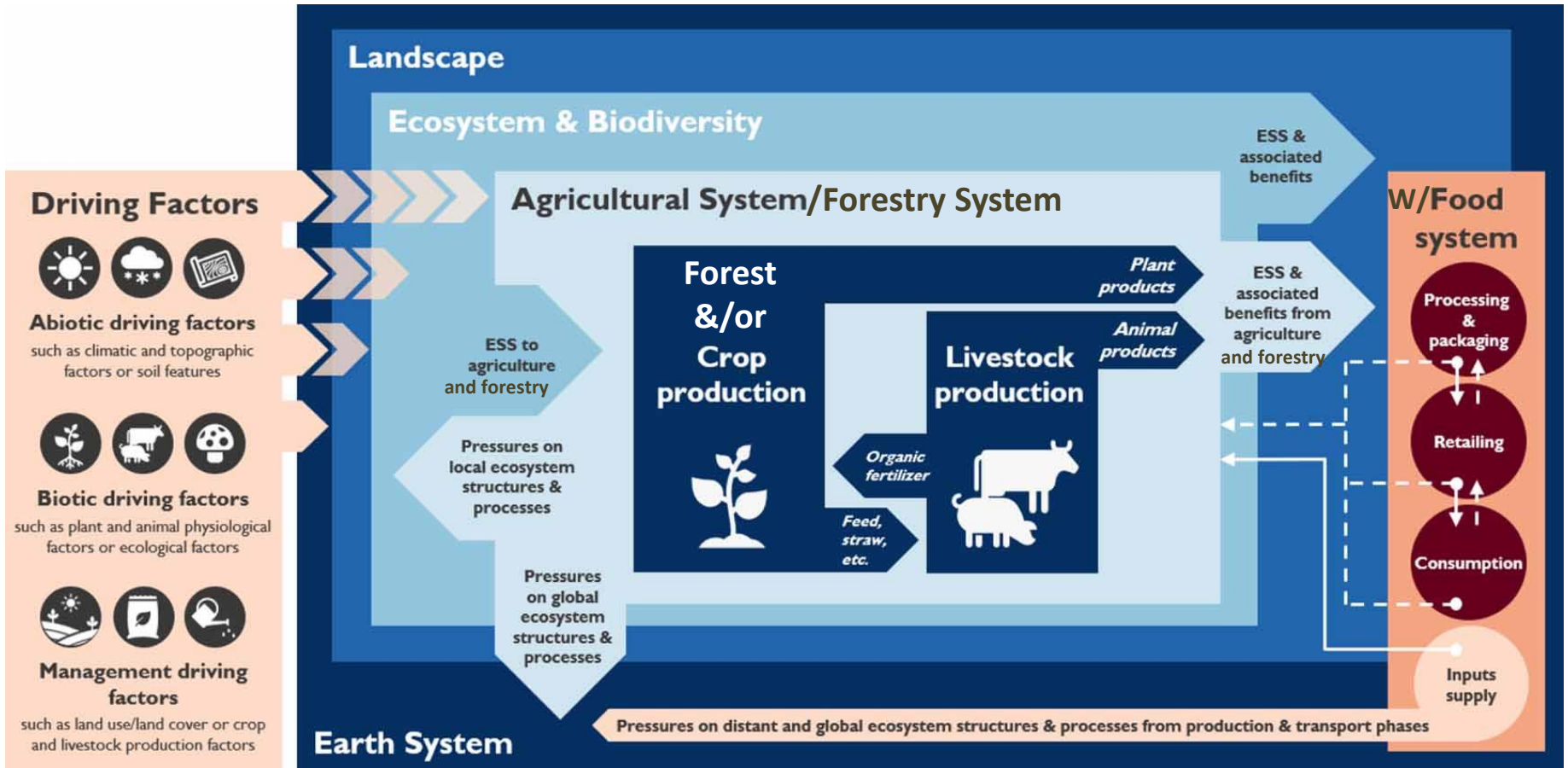
Climate accelerated peat loss



Green investment risk



Changing timber prices



The Science-evidence-policy process for decision support

- Information systems research provides a framework to deploy science and evidence in government - DIKW
- Our current advice system fits within this framework, but its decision support capacity could be strengthened
- There are examples of decision support tools we could adopt, adapt and link to the SRP – how do we progress?